



SYSCOM Assessment Support to the Naval Capabilities Development Process

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**Statement A: Approved for public
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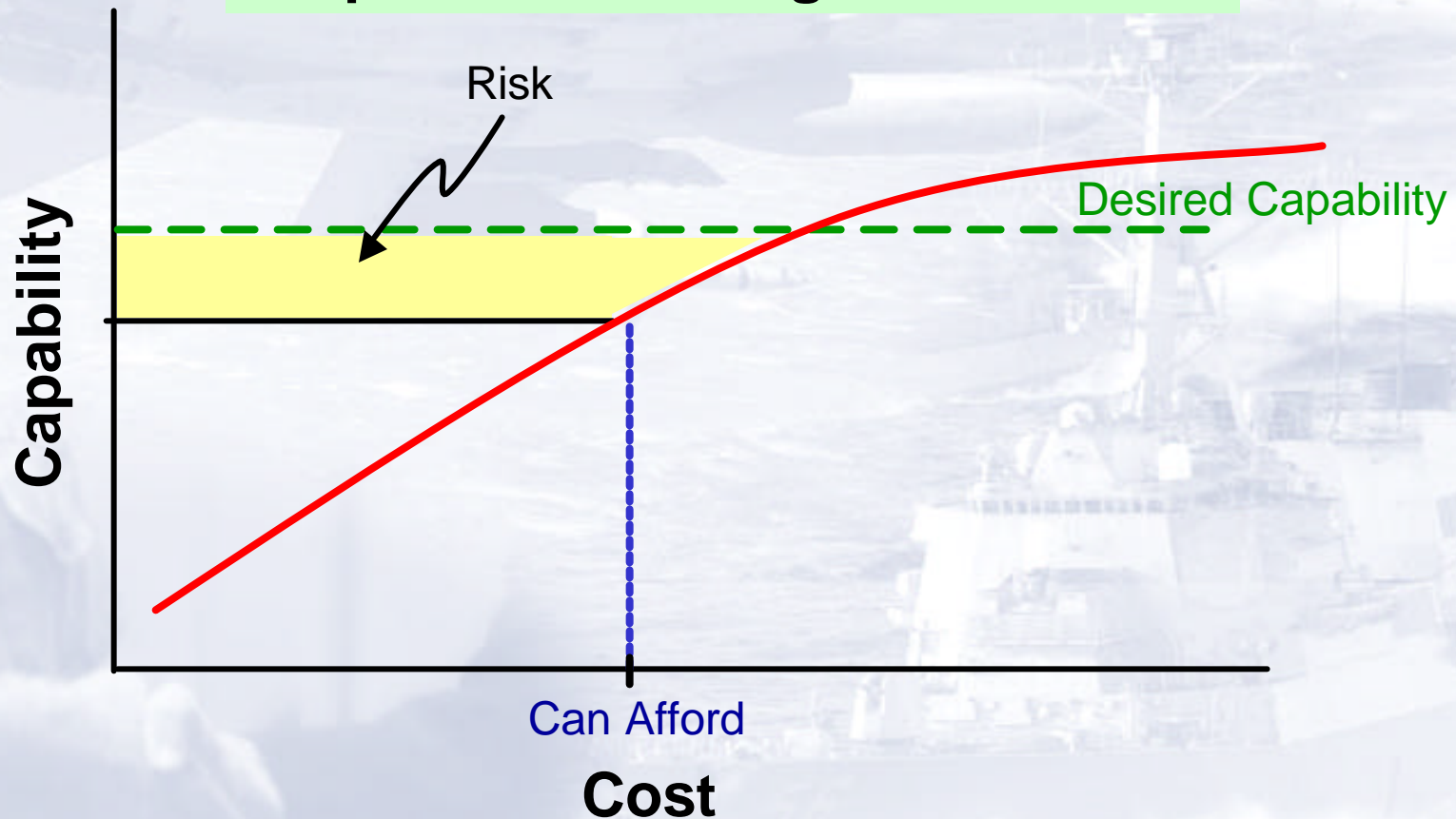


Overview

- **Naval Capability Development Process (NCDP)**
- **Evolving Approach Combining FORCEnet Implementation with NCDP**
- **SPAWAR's Analytical Products**
- **Balancing Risk & Resource Alignment**
- **Summary**

Cost vs Capability

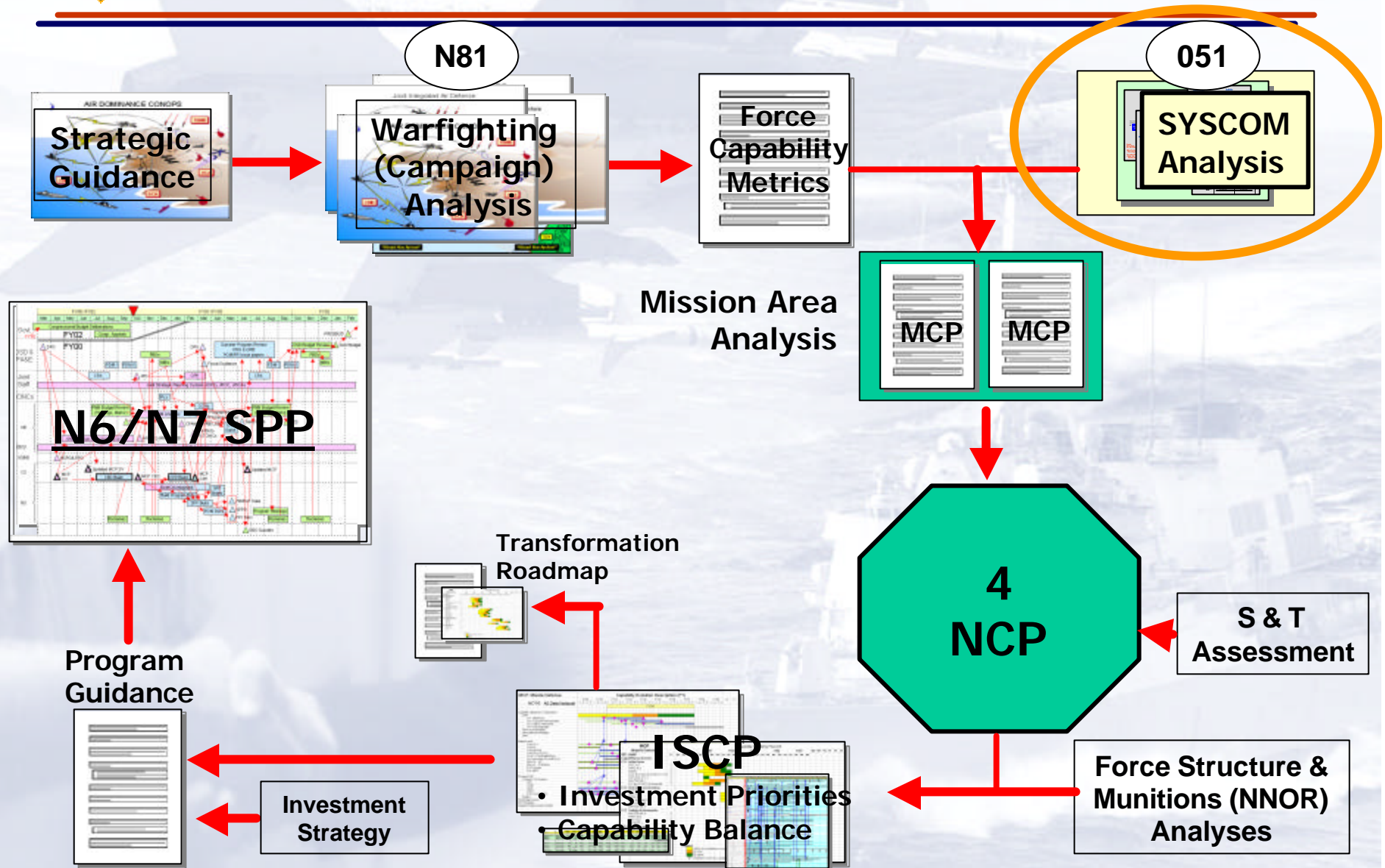
Requirement = Program + Risk



SoS & FoS Mapping provides the Foundation!!



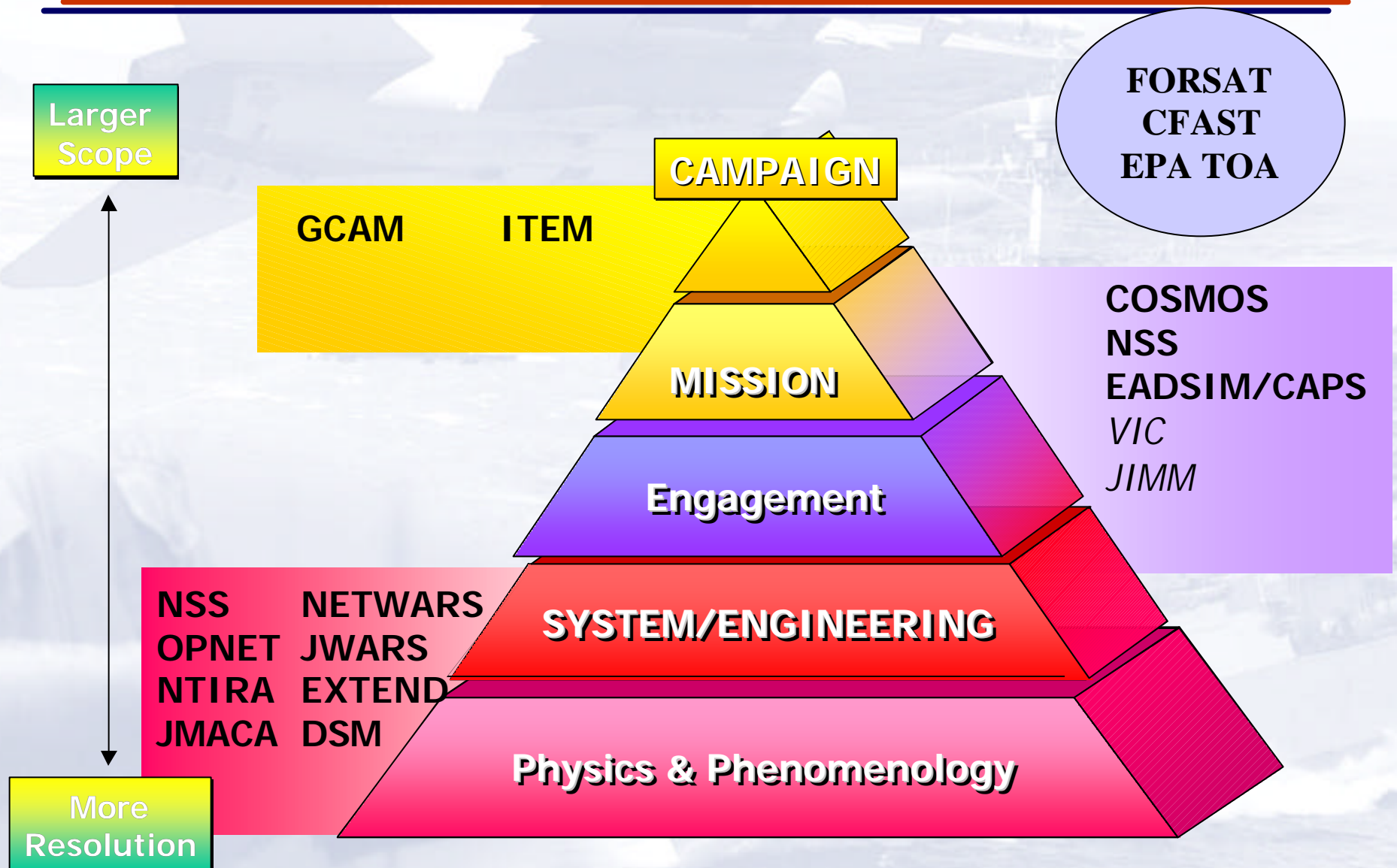
Naval Capability Development Process (NCDP)



Unclassified



Engineering Modeling Hierarchy





Evolving SYSCOM Assessment Process Merges NCDP and FORCEnet Implementation

- **Prioritized Operational Scenarios**
 - OV-1s, OV-6cs [threads]
- **MOPs/MOE/Metrics**

N81/N6/N7/NNWC/C2F/C3F/CFFC

- N81 Campaign Analysis
- Fleet Exercises
- Ongoing Military Operations

- **Systems Architectures**
 - SV-1s, SV-10cs
- **Performance, Cost, Schedules, Risk Options Analysis**
 - Roadmaps

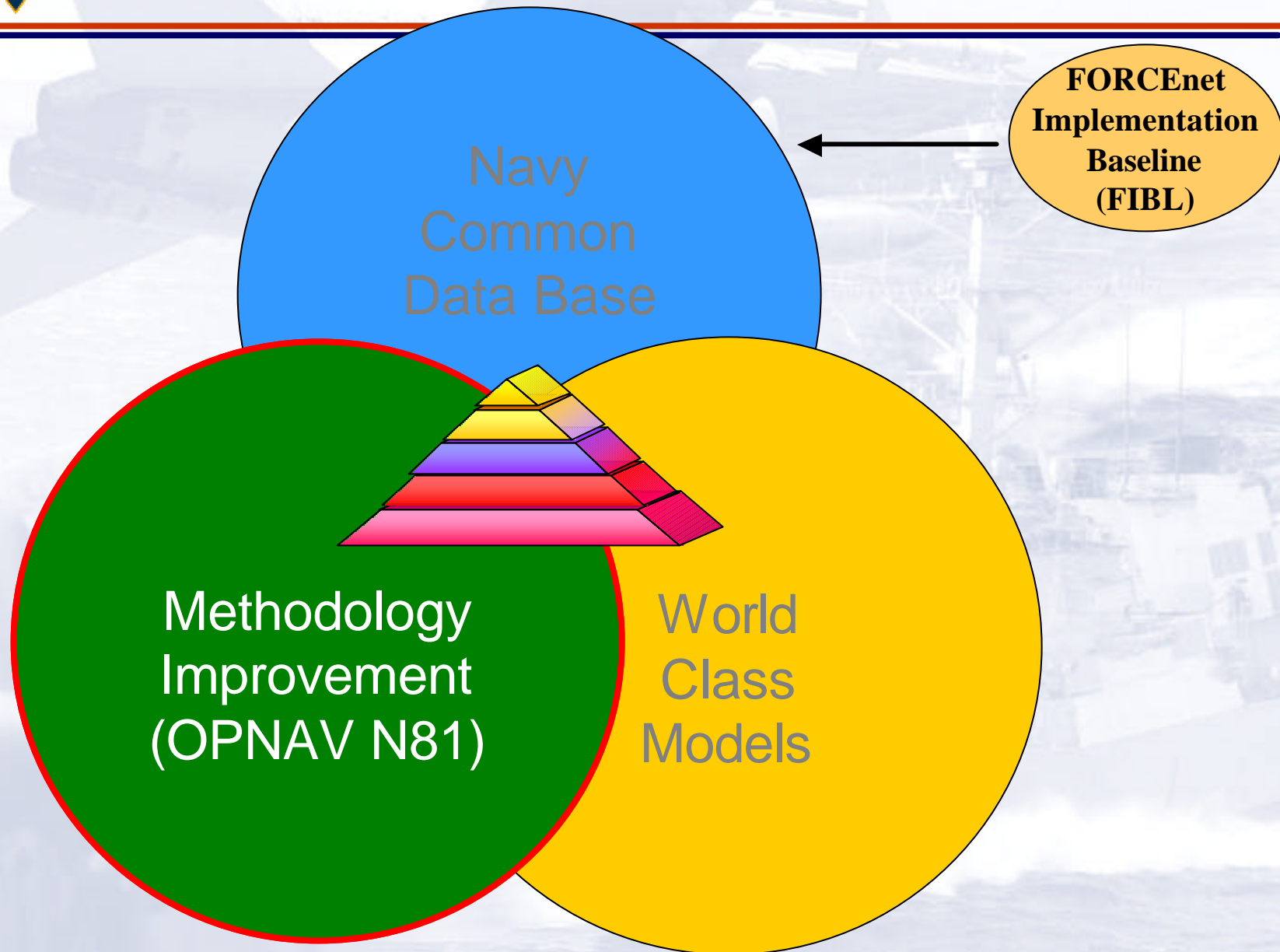
SYSCOMS/SSCs

- **Experimentation**
 - DEP
 - Trident Warrior
- **Static Assessments**
 - FnIBL Survey
 - GEMINII
 - OPNET
- **Dynamic Assessment**
 - NETWARS
 - JWARS
 - NSS



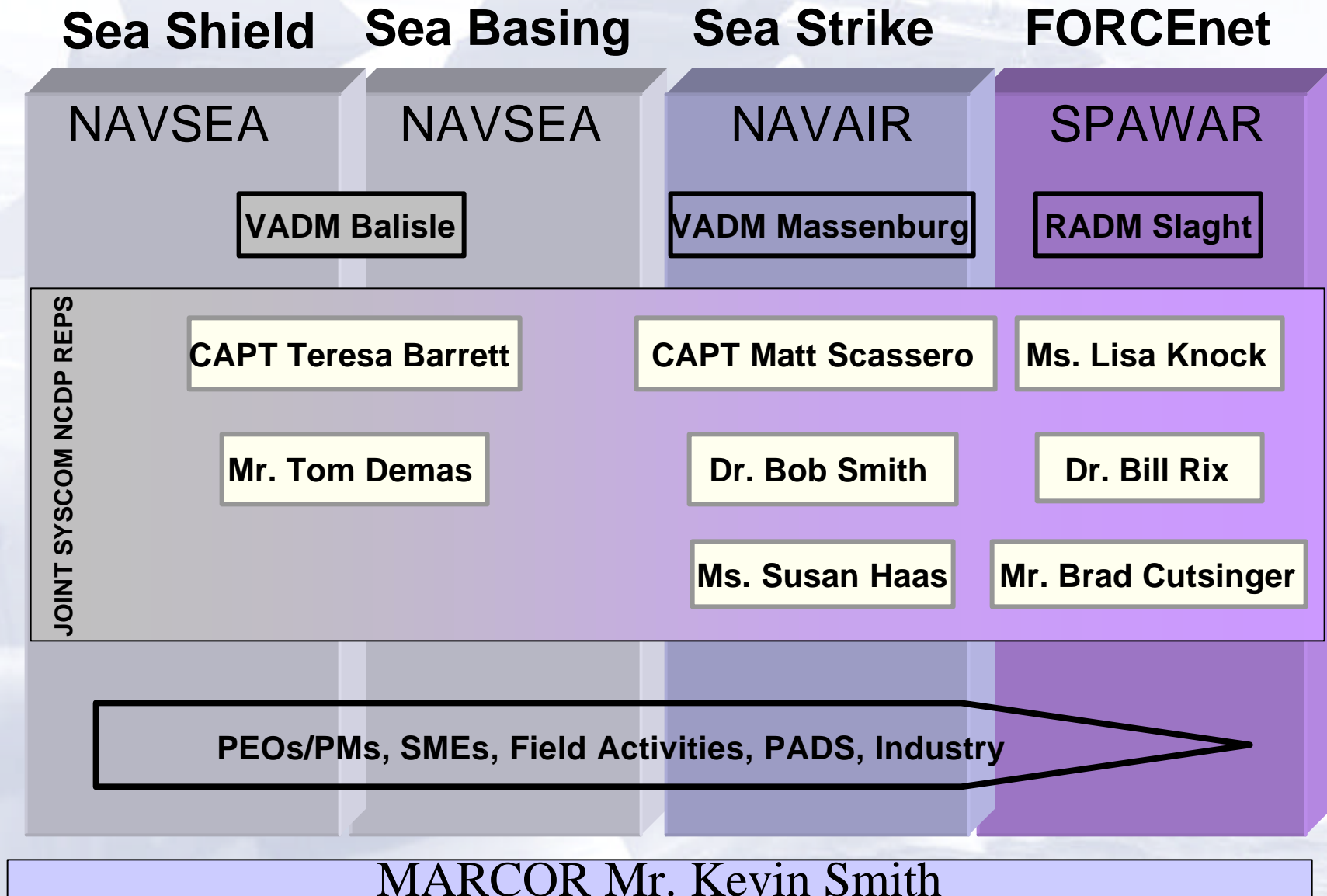
SYSCOM Assessments

Use of OPNAV N81 Tools





Joint SYSCOM NCDP Construct

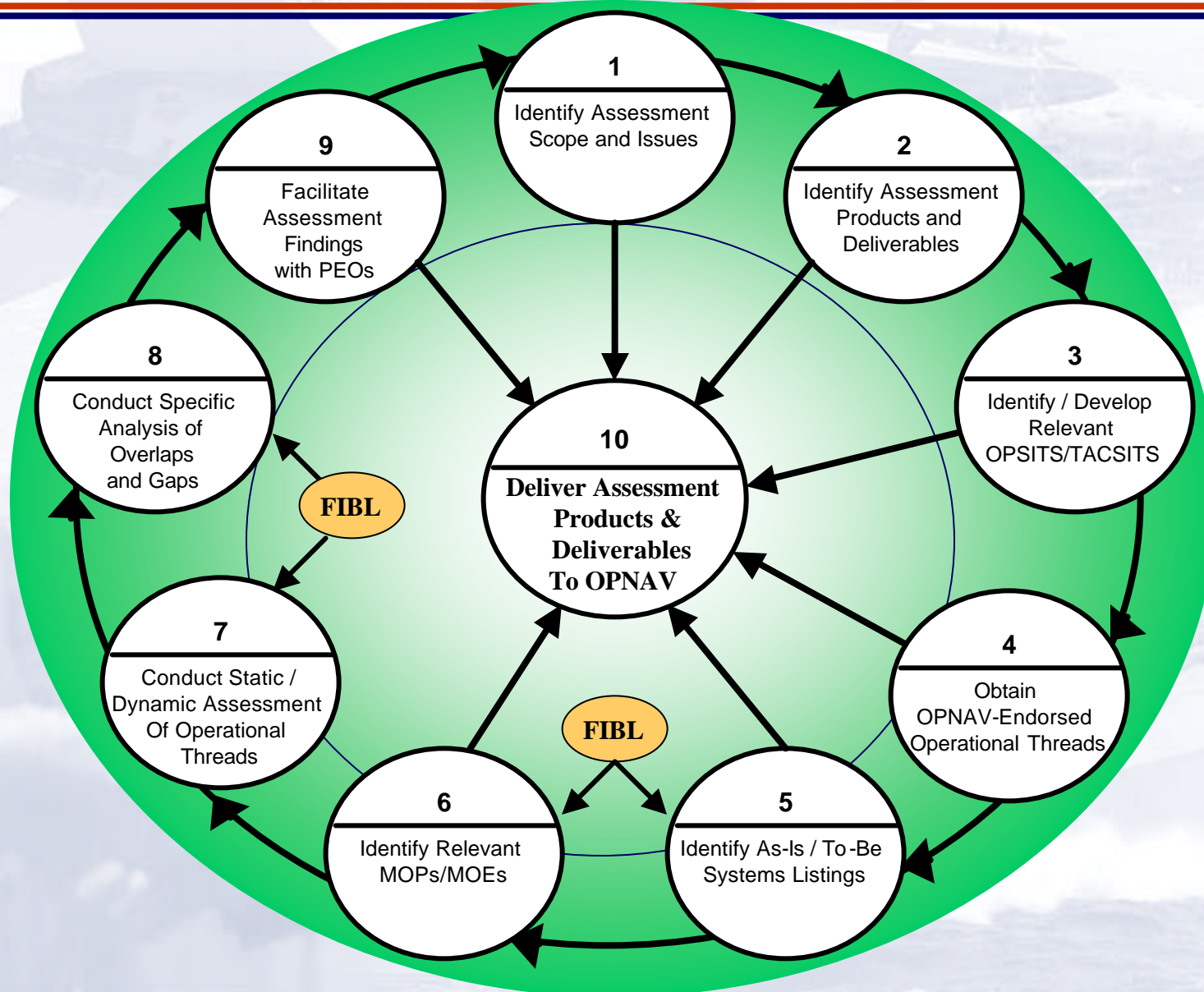




SPAWAR's Analytical Products

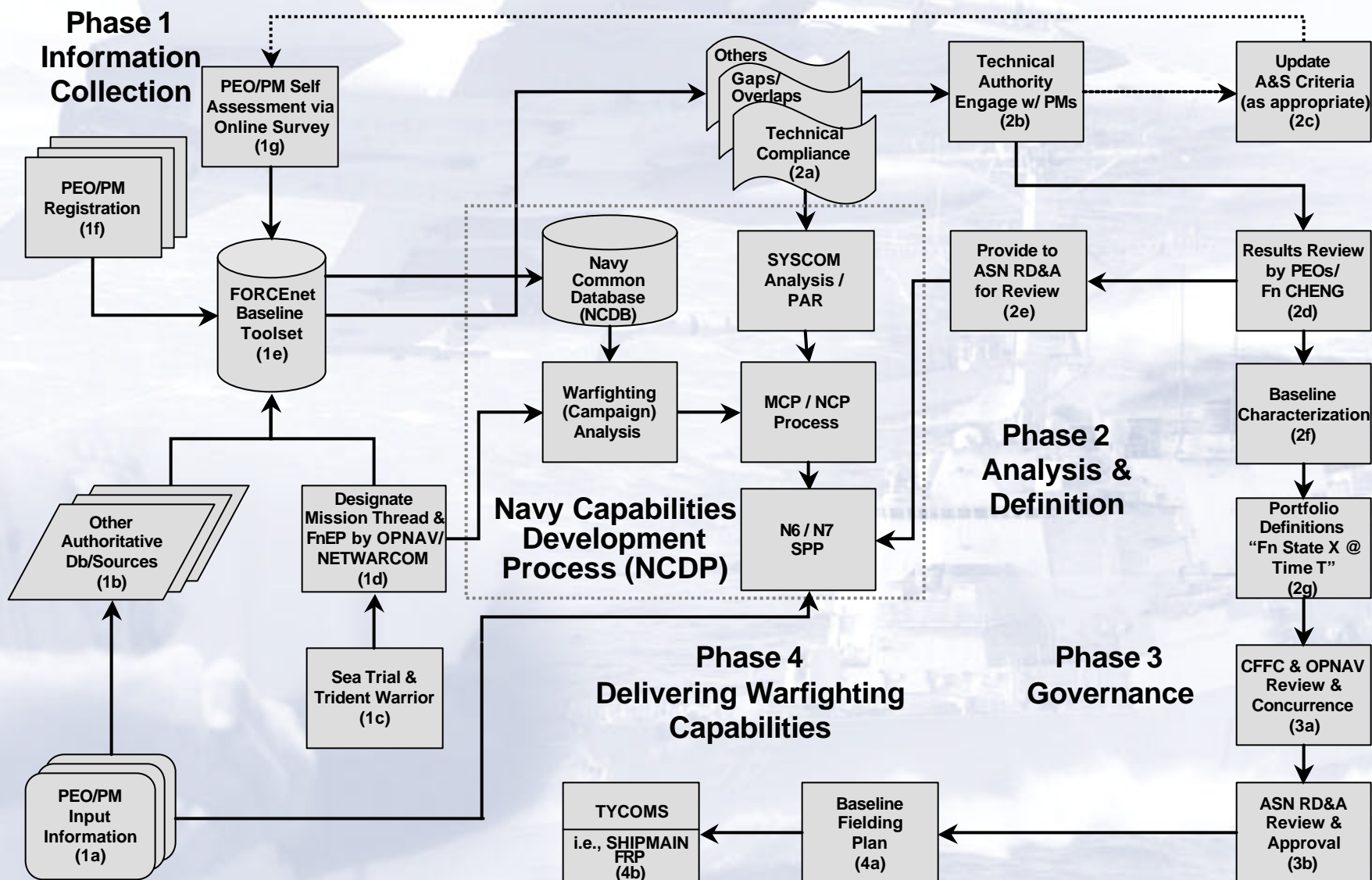
- **Assessment Analysis Focuses on Evaluating As-is and To-be Systems Architectures Capability to Perform MCP Mission Threads**
- **Assessments Validated, When Possible, in Joint Experimentation Efforts Such As Joint Rapid Architecture Experiments (JRAE)**
- **Human Systems Integration (HSI) and Related HSI Assessments Are Critical Elements of This End-to-end Process**

SYSCOM Assessment Approach



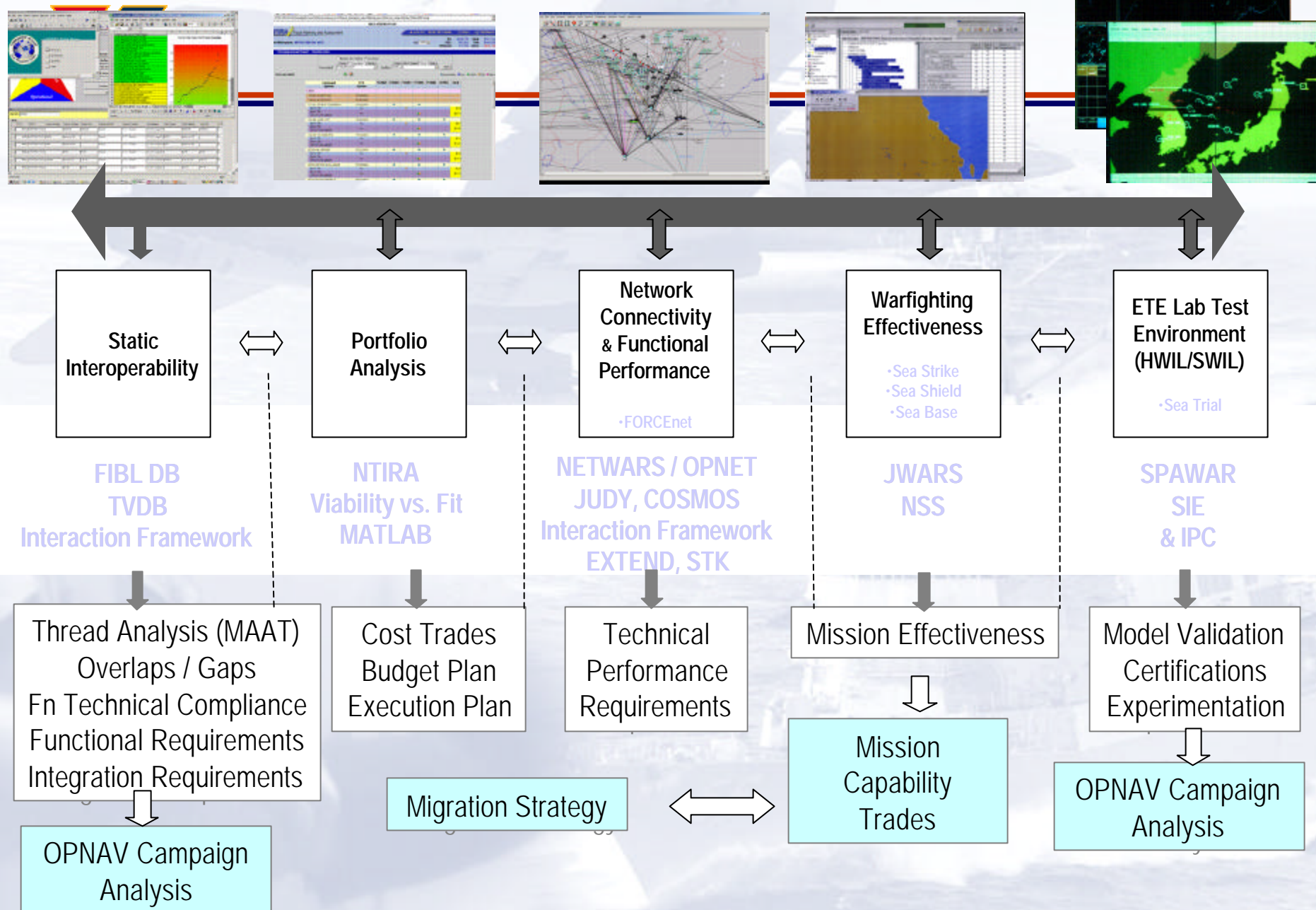


FORCEnet Implementation Process



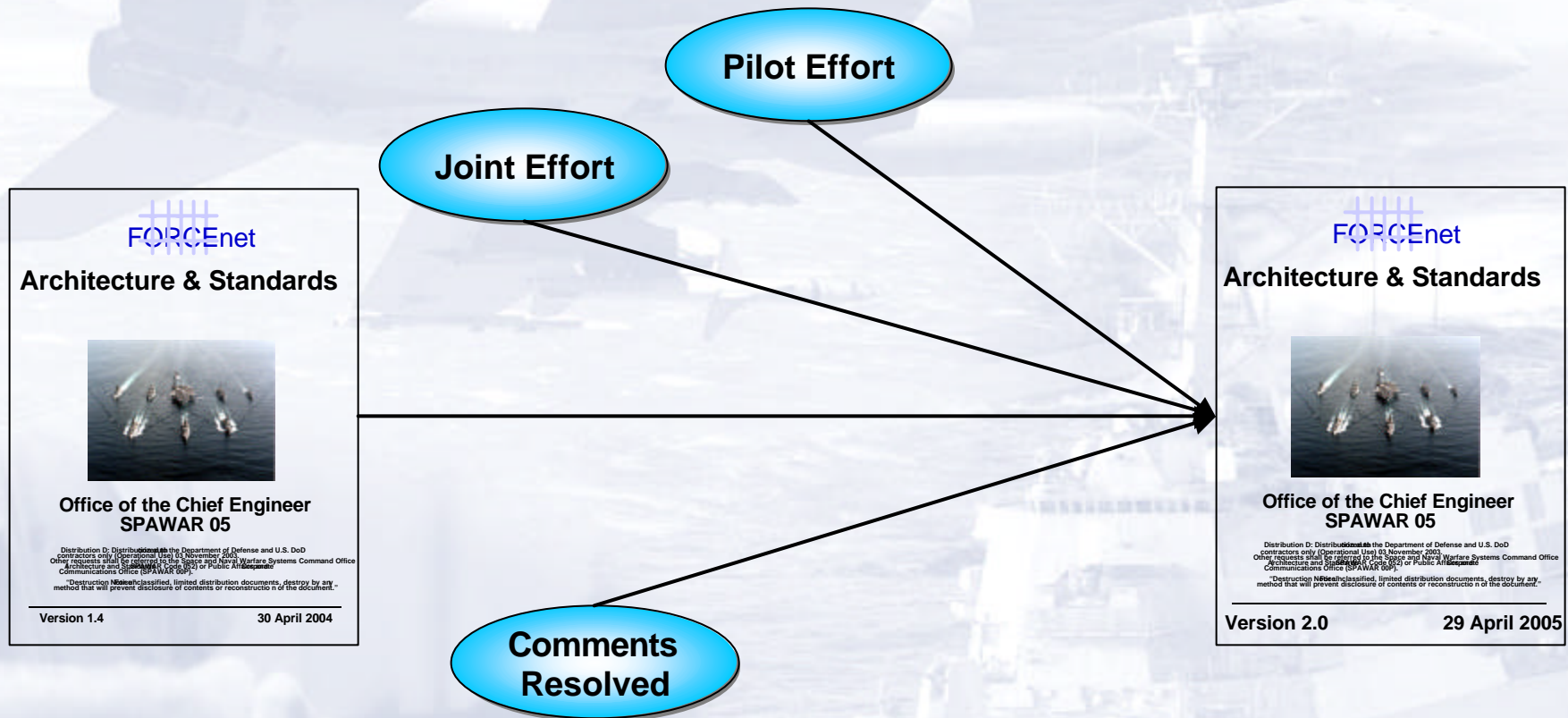
Note: C4I VS Process Engaged As Necessary

FIBL Process Tools



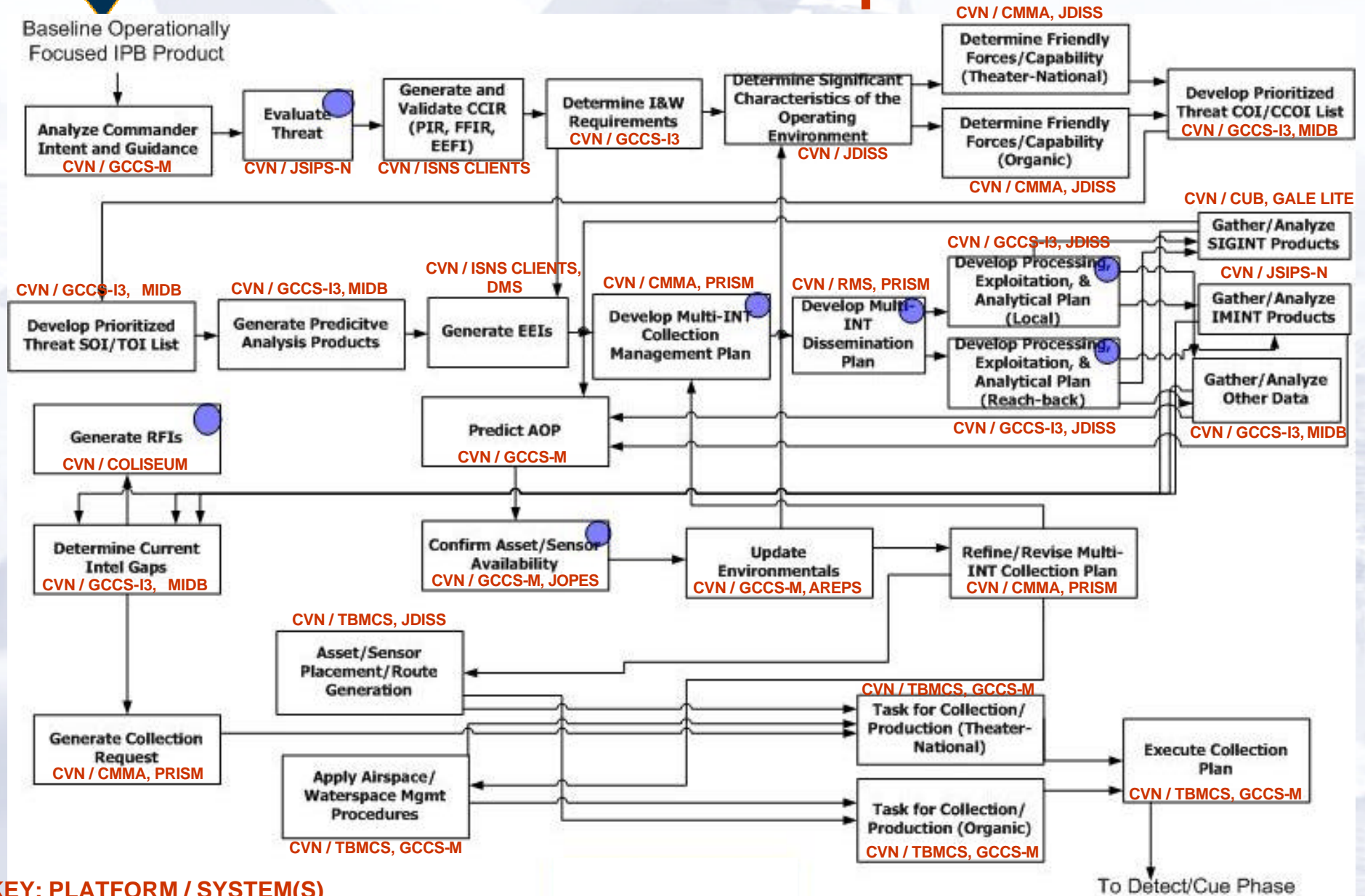


Architecture Products



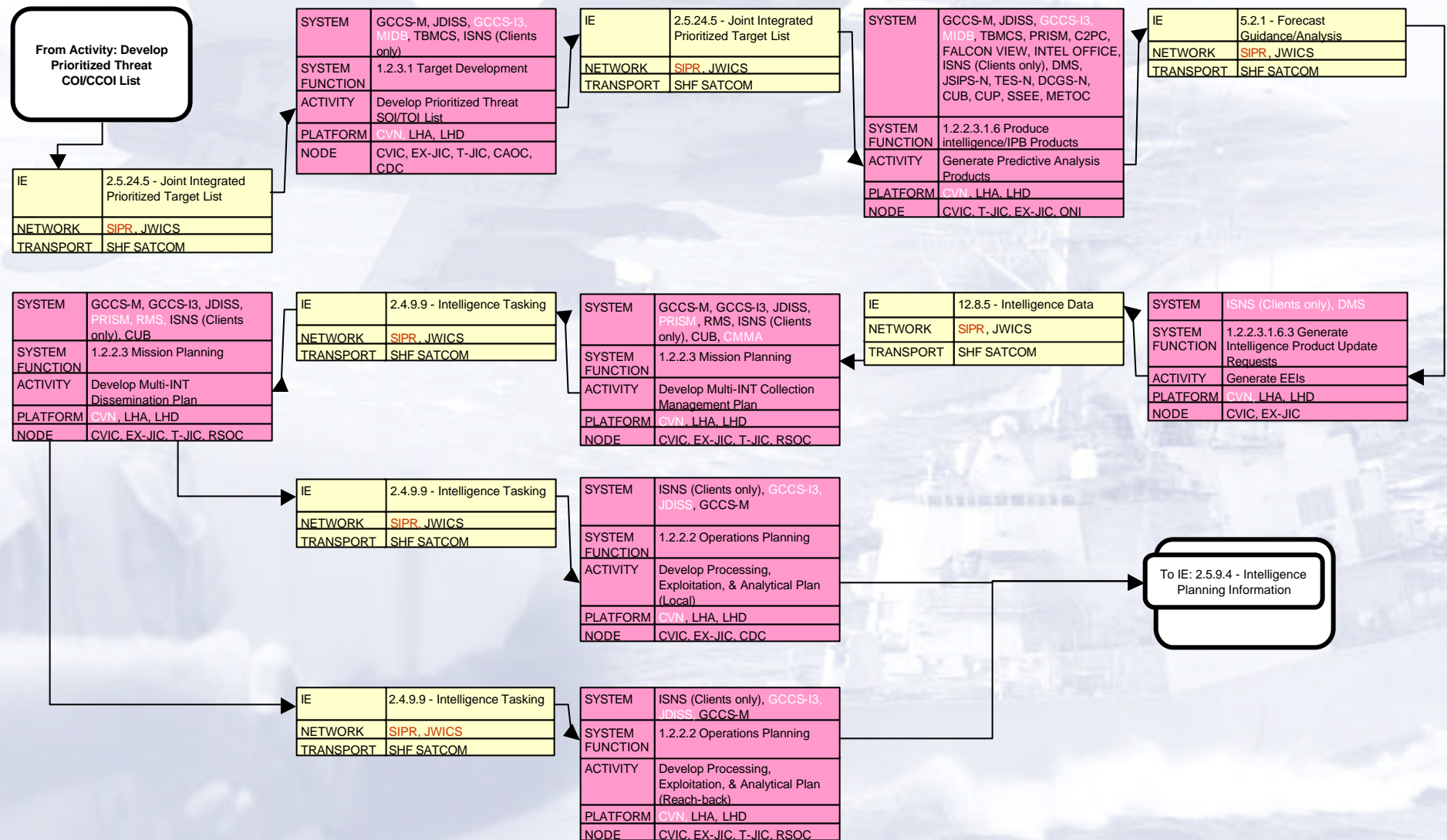


Example: Time Critical Strike Operational View





Example: Time Critical Strike Systems View



Plan

Detect

Identify

Communicate

Track

Decide

Engage

Assess

Platform

5



Authoritative Databases / Sources

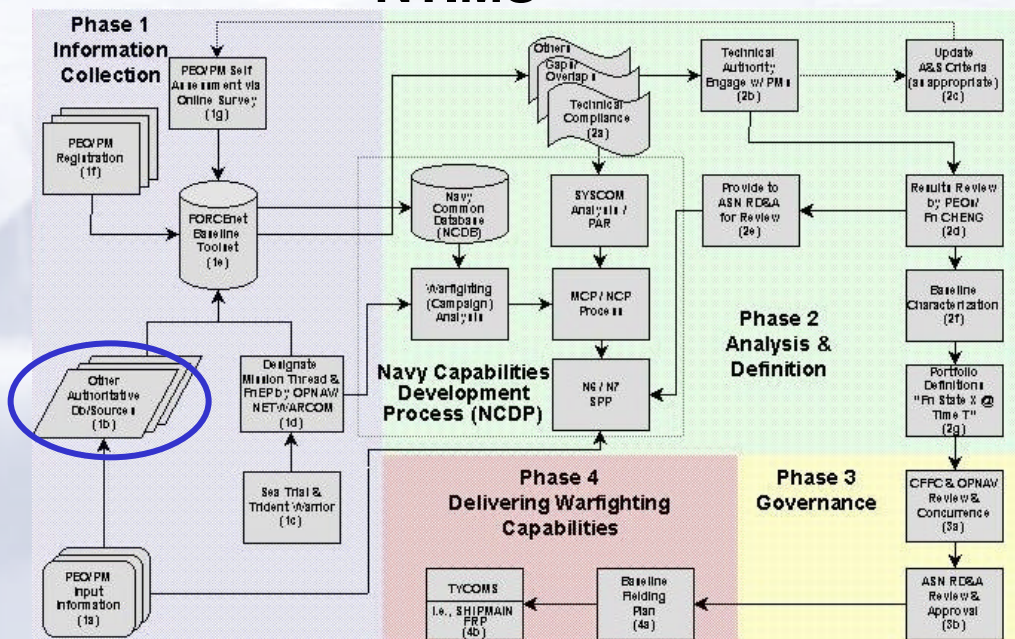
- Auto Update:

- NTIRA (FnMP)

- PBIS
 - NDE / AMPS
 - SPIDER
 - NTIMS

- Manual Update:

- JCPAT (C4ISP)
 - PEO C4I Roadmap
 - MSTAR (USMC)
 - DoD IT Registry
 - ONR S&T Roadmap
 - GEMINII (Fn Analysis)
 - JTA
 - Others



Listing Above Reflects Current Status – Future Plans Will Automate the Interface to More Authoritative Sources As the Business Rules Are Worked Out



SYSCOM Assessments Methodology / Tools Status

Current Status

- FIBL tools are nearly completed to support overlap / gap analyses
- FIBL population is underway for all FORCEnet systems
- Analysis/Assessment tools and methodology proven (approx. 9 assessments in last 2 yrs.)

Way Ahead

- Increase FIBL data collection and reporting relevant to assessments
- Utilize OPNAV MI-WIPTs to improve assessment quality
- Increase Joint system population

Shortfalls

- Static models currently cover only 142 functions of RDA CHENG CSFL of 1000+ functions
- Static models cover very few joint systems
- Mission threads are key; formal approval process within OPNAV / NNWC needs to be established for various mission areas

The Future Vision

- Populate FIBL Toolset with RDA CHENG CSFL
- FIBL Reports are fully joint
- Added assessment capability to assess HSI
- Joint Interoperability assessments



Balancing Risks & Resource Alignments

- **Current Process Focuses on Identifying End-to-End System Performance Risk**
- **Cost and Schedule Risk Are Evaluated by PMs for Individual Systems**
- **Working to Collaborate With PEOs by Integrating / Aligning Their C4ISR Product Roadmaps**
- **Fully Populated FnIBL Will Facilitate Improved Risk vs Resource Analysis**

- **Significant Progress**
 - FORCEnet Implementation Baseline alignment with NCDP
 - Virtual SYSCOM Collaboration
 - N81 inclusion of SYSCOMs
- **Recommend Focus Areas**
 - Fleet and OPNAV Operational View inputs
 - Joint alignment on requirements
 - Staffing impacts assessments



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SPAWAR

